AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application.

Listing of Claims

1. (Original) A wound healing composition comprising living cells within a support matrix, in which the cells have a wound healing phenotype, and in which the composition is single-layered and has been incubated for up to about 8 days to allow development of the wound healing phenotype.

2. (Currently Amended) The wound healing composition of ~~according to~~ claim 1, in which the composition is incubated for up to about 96 hours ~~h, for example up to 72 h, 48 h, 25 h or 24 h, preferably for 16 h to 24 h~~.

3. (Currently Amended) The wound healing composition ~~according to either~~ of claim 1 ~~or claim 2~~, in which the composition is incubated at a temperature of about 37°C.

4. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, in which the composition is stored after incubation for up to about 40 days~~, preferably up to 19 days and more preferably about 7 to 14 days or about 7 to 11 days~~ at a temperature of 2°C to 8°C~~, for example 3°C to 5°C, preferably about 4°C,~~ while retaining the wound healing phenotype.

5. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, in which the cells are mammalian~~, for example human~~.

6. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, in which the cells are substantially fibroblasts~~, for example 90% to 100%, preferably 95% to 99.5%, and more preferably 97.5% to 99% fibroblasts~~.

7. (Currently Amended) The wound healing composition of ~~according to~~ claim 6, in which the fibroblasts are dermal fibroblasts~~, preferably human dermal fibroblasts~~.

8. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, in which the composition ~~cells~~ substantially excludes ~~exclude~~ keratinocytes.

9. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, in which the cells are actively synthetic or able to become actively synthetic rapidly.

10. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, in which the cells are not proliferating ~~and/~~or not senescent.

11. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, in which the cells are suspended within the matrix~~, preferably substantially uniformly within the matrix~~.

12. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, in which the matrix is protein-based~~, for example having a protein concentration in the range of about 3 to 12 mg.ml^{-1}~~.

13. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, in which the matrix is a fibrin matrix.

14. (Currently Amended) The wound healing composition of claim 13 ~~according to claim 12~~, in which the fibrin has a concentration in the range of 3 to 12 $mg.ml^{-1}$~~, for example 7 to 12 $mg.ml^{-1}$ or 3 to 5 $mg.ml^{-1}$~~.

15. (Currently Amended) The wound healing composition ~~according to either~~ of claim 13 ~~or claim 14~~, in which the fibrin matrix is formed by thrombin-mediated polymerisation of fibrinogen.

16. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, in which the matrix is non-pyrogenic ~~and/~~or sterile.

17. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, further comprising a protease inhibitor~~, for example aprotinin and/or tranexamic acid~~.

18. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, in which the composition is incubated in a protein-rich environment.

19. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, in which the composition has a thickness of approximately 8 mm or less~~, preferably 5 mm or less~~.

20. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, comprising about 450 to 2500 cells per mm^2~~, for example about 750 to 2000 cells per mm^2, preferably about 900 to 1700 cells per mm^2 such as about 1500 cells per mm^2, or for example about 450 to 550 cells per mm^2 and preferably about 500 cells per mm^2~~.

21. (Currently Amended) The wound healing composition of ~~according to~~ claim 1, in which the cells are human dermal fibroblasts within a sterile, non-pyrogenic support matrix formed by thrombin-mediated polymerisation of fibrinogen, and in which the composition has been incubated for 16 to 24 hours ~~h~~ at about 37°C.

22. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, in which the matrix is solid or semi-solid.

23. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, in which the composition is packaged in a container suitable for transporting the composition, storing the composition, ~~(for example, while storing the composition) and~~/or topically applying the composition to a skin surface.

24. (Currently Amended) The wound healing composition of ~~according to~~ claim 23, in which the container comprises a flexible pouch consisting of two sheets of impermeable flexible material peripherally sealed to provide a means of containment for the composition, the pouch comprising a first internal surface to which the composition is adherent at a level of adhesion more than between the composition and a second internal surface of the pouch but less than that between the composition and the skin surface, such that in use the pouch may be opened by parting the sheets and the composition conveniently manipulated and directly applied to the skin surface without further requirement for the composition to be touched directly by any other means prior to application.

25. (Currently Amended) The wound healing composition ~~according to either~~ of claim 23 ~~or claim 24~~, in which the container is an Oliver (RTM) Products Company "Solvent Resistant Peelable Pouching Material" (Product number Q15/48BF1).

26. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, for use as a medicament.

27. (Currently Amended) The wound healing composition of claim 1 ~~according to any preceding claim~~, for use as a medicament in the treatment of a skin lesion.

28. (Currently Amended) The wound healing composition ~~according to either~~ of claim 26 ~~or 27~~, wherein said medicament is used for topical application to a skin lesion ~~such as a venous ulcer, diabetic ulcer, pressure sore, burn or iatrogenic grating wound~~.

29-36 (Cancelled)

37. (New) The wound healing composition of claim 2, in which the composition is incubated for up to about 72 hours, 48 hours, 25 hours, or 24 hours.

38. (New) The wound healing composition of claim 2, in which the composition is incubated for between about 16 to about 24 hours.

39. (New) The wound healing composition of claim 4, in which the composition is stored after incubation for up to about 19 days.

40. (New) The wound healing composition of claim 39, in which the composition is stored after incubation for about 7 to 14 days or about 7 to 11 days.

41. (New) The wound healing composition of claim 4, in which the composition is stored after incubation at a temperature of 3°C to 5°C.

42. (New) The wound healing composition of claim 41, in which the composition is stored after incubation at a temperature of about 4°C.

43. (New) The wound healing composition of claim 5, in which the cells are human.

44. (New) The wound healing composition of claim 6, in which fibroblasts comprise between about 90% to 100% of the cells of said composition.

45. (New) The wound healing composition of claim 7, in which the fibroblasts are human dermal fibroblasts.

46. (New) The wound healing composition of claim 11, in which the cells are suspended substantially uniformly within the matrix.

47. (New) The wound healing composition of claim 12, in which the matrix has a protein concentration in the range of about 3 to 12 $mg.ml^{-1}$.

48. (New) The wound healing composition of claim 14, in which the fibrin has a concentration in the range of 3 to 5 $mg.ml^{-1}$ or 7 to 12 $mg.ml^{-1}$.

49. (New) The wound healing composition of claim 17, wherein said protease inhibitor is aprotinin or tranexamic acid.

50. (New) The wound healing composition of claim 19, in which the composition has a thickness of approximately 5 mm or less.

51. (New) The wound healing composition of claim 28, wherein said skin lesion is a venous ulcer, diabetic ulcer, pressure sore, burn or iatrogenic grating wound.

52. (New) A method of manufacturing the wound healing composition of claim 1, comprising the steps of:
suspending living cells in a solution comprising a polymerisation agent or a monomer capable of being polymerised by the polymerisation agent into a matrix;
forming a single-layered support matrix comprising the cells by polymerisation of the monomer with the polymerisation agent; and
incubating the matrix under conditions which allow development of a wound healing phenotype in the cells, thereby forming the wound healing composition.

53. (New) The method of claim 52, in which the matrix is formed by adding monomer or polymerisation agent to the solution such that both monomer and polymerisation agent are present in sufficient concentrations to effect polymerisation.

54. (New) The method of claim 52, in which the monomer is fibrinogen and the polymerisation agent is thrombin.

55. (New) The method of claim 52, in which polymerisation occurs in a mold.

56. (New) The method of claim 52, comprising the further step of packaging the wound healing composition into a container for storing the composition or for

transporting the composition or for topically applying the composition to a skin surface of a patient.

57. (New) A method of manufacturing the wound healing composition of claim 1, comprising the steps of forming a single-layered support matrix by polymerising a polymerisable monomer with a polymerisation agent, casting living cells into the support matrix, and incubating the matrix under conditions which allow development of a wound healing phenotype in the cells, thereby forming the wound healing phenotype.

58. (New) The method of claim 57, in which the monomer is fibrinogen and the polymerisation agent is thrombin.

59. (New) The method of claim 57, in which polymerisation occurs in a mold.

60. (New) The method of claim 57, comprising the further step of packaging the wound healing composition into a container for storing the composition, transporting the composition, or topically applying the composition to a skin surface of a patient.

61. (New) Use of living cells as defined in claim 1 in the manufacture of a wound healing composition for the treatment of a skin lesion.

62. (New) A method of treating a patient suffering from a skin lesion comprising topically applying of the wound healing composition of claim 1 to the skin lesion.